

**REMARKS**

This Amendment is in response to the Office Action mailed on June 28, 2004. In the Office Action, the Examiner:

- objected to the disclosure for informalities;
- rejected claims 1, 5-14, 18, 22-26 and 33 under 35 U.S.C. 103(a) as being unpatentable over Elwahab et al. in view of Ayanoglu et al.;
- rejected claims 15 and 17 under 35 U.S.C. 103(a) as being unpatentable over Elwahab as applied to claims 1, 5-14, 18, 22-26 and 33 in view of Ayanoglu;
- rejected claims 2-4, 16 and 19-21 under 35 U.S.C. 103(a) as being unpatentable over Elwahab in view of Ayanoglu as applied to claims 1, 5-14, 18, 22-26 and 33, and further in view of Hall;
- rejected claim 27 under 35 U.S.C. 103(a) as being unpatentable over Elwahab and Ayanoglu as applied to claims 1, 5-14, 18, 22-26, 33 and 15, 17, and further in view of Snelgrove;
- rejected claims 34-36 and 41 under 35 U.S.C. 103(a) as being unpatentable over Elwahab and Ayanoglu, and further in view of Hall;
- rejected claims 38-40 under 35 U.S.C. 103(a) as being unpatentable over Elwahab, Ayanoglu and Hall as applied to claims 134-36 and 4, and further in view of Chiu;
- objected to claims 28-32 and 37 as being dependent upon rejected base claim.

In this response, the specification has been amended to correct typographical errors, and claims 1, 15, 16, 18, 34, and 41 have been amended. New claims 42 and 43 are added. Entry thereof into the instant application is requested.

Claim 1 as amended recites:

A communications system for communicating between points of presence and customer premises comprising:  
a plurality of ATM nodes,

first connection means for connecting said ATM nodes to said customer premises,  
second connection means for connecting said ATM nodes to said points of presence,  
a plurality of transports connecting said ATM nodes in an ATM network having a mesh architecture, and  
control means for controlling the routing of data among said ATM nodes to enable the transport of information between said points of presence and said customer premises, and  
wherein said ATM network provides an alternate backhaul transport for communications between said points of presence and said customer premises in parallel with an established backhaul transport via an office, and said ATM nodes are located away from said office to be close to respective ones of said customer premises.

Claim 1 as amended is distinguishable from Elwahab in view of Ayanoglu. Elwahab discloses a method for remote management of network elements in a system having an established backhaul transport via a central office. In Elwahab, the ATM switches in the backhaul transport are part of the central office and are used to route both voice and data (Fig. 1 and Paragraph [0020]). Elwahab does not disclose an ATM network that provides an alternate backhaul transport for broadband communication in parallel with the established backhaul transport. Elwahab also does not disclose an ATM network having ATM nodes that are located away from the central office to be close to respective ones of the customer premises. Instead, Elwahab presents a typical situation where digital subscriber line (DSL) services are deployed by installing a digital subscriber line access multiplexer (DSLAM) at the central office (Fig. 1). As recited in Paragraph 11 in the specification of the present application, while this connection can be satisfactory when no local concentrator is present, DSLAMs located at the central office generally cannot send data traffic directly to customer modems for customers serviced through concentrators such as digital loop carriers (DLC), because of insufficiency of the legacy equipment or poor POTS line quality resulting from long distances from a central office or other conditions. In short, Elwahab presents a system having disadvantages that the claimed invention in amended claim 1 attempts to overcome.

Ayanoglu discloses a system for extending ATM from the LAN/WAN infrastructure

towards wireless users. The system in Ayanoglu includes a wireless LAN carrying “wireless ATM” (WATM) to support ATM cell transport directly into the terminals of the users, a wide area network (WAN) carrying standard ATM, and a WATM/ATM converter in between (Fig. 2, and Col. 1, line 60 to Col. 2, line 2). As such, the WATM is not an alternate backhaul transport in parallel with the WAN. Instead, the WATM in Ayanoglu acts as an interface between the WAN and the terminals of the users. Moreover, both the WATM and WAN are linked together in series instead of in parallel to be part of the communication mechanisms in Ayanoglu (Fig. 3). Thus, Ayanoglu does not disclose an ATM network that provides an alternate backhaul transport for communications between points of presence and customer premises in parallel with an established backhaul transport via an office.

Therefore, claim 1 as amended is patentable over Elwahab and Ayanoglu.

Claims 2-14, claim 15-16 as amended, claim 17, and new claims 42-43 depend from claim 1 as amended, and include further limitations in addition to the limitations in claim 1 as amended. Therefore, Claims 2-14, claim 15-16 as amended, claim 17, and new claims 42-43 are patentable for at least the same reasons claim 1 as amended is patentable.

The argument regarding claim 1 as amended is applicable to claim 18 as amended. Therefore, claim 18 as amended is also patentable over Elwahab and Ayanoglu.

Claims 19-33 depend from claim 19 as amended, and include further limitations in addition to the limitations in claim 18 as amended. Therefore, Claims 19-33 are patentable for at least the same reasons claim 18 as amended is patentable.

Claim 34 as amended recites:

A communications system for servicing customer premises connected to access points and connected over an established backhaul transport to an office comprising:

an access network formed of one or more environmentally-hardened remote digital subscriber line access multiplexers in pole-mountable enclosures placed at locations away from said office to be near respective ones of said customer premises and a plurality of access wireless transports connecting said access multiplexers,

access connecting means for connecting said access multiplexers to said access points,  
a mesh network forming an alternate backhaul transport in parallel with said established backhaul transport, said alternate backhaul transport connecting said access multiplexers to provide broadband services to said customer premises and including a plurality of ATM nodes connected by a plurality of node wireless transports using a mesh architecture and having redundant connections, and  
a plurality of inter-network wireless transports connecting said access network to said mesh network.

Claim 34 as amended is distinguishable from Elwahab in view of Ayanoglu and further in view of Hall. As discussed above, Elwahab does not disclose an ATM network that provides an alternate backhaul transport in parallel with an established backhaul transport. Elwahab also does not disclose remote digital subscriber line access multiplexers connected to such an ATM network and placed in locations away from the central office to be near respective ones of the customer premises. In Elwahab, digital subscriber line (DSL) services are deployed by installing a digital subscriber line access multiplexer (DSLAM) in the central office. As pointed out in the specification of the present application, this configuration presents problems to remote customers and those serviced through concentrators, which problems the claimed invention in amended claim 34 is attempting to solve.

As discussed above, Ayanoglu also does not disclose an ATM network forming an alternate backhaul transport. In Ayanoglu, a wireless LAN carrying "wireless ATM" (WATM) to support ATM cell transport directly into the terminals of the users is connected to a wide area network (WAN) carrying standard ATM via a WATM/ATM converter in between (Fig. 2, and Col. 1, line 60 to Col. 2, line 2). As such, the WATM is not an alternate backhaul transport in parallel with the WAN. In fact, both the WATM and WAN are linked together in series to be part of the communication mechanisms in Ayanoglu (Fig. 3).

Hall discloses a weather resistant modular sensor and computing platform. But Hall does not disclose how the sensor or computing platform can be used in a system similar to that claimed in amended claim 34.

Therefore, claim 34 is patentable over Elwahah in view of Ayanoglu and further in view of Hall.

Claims 35-40 depend from claim 34 as amended, and include further limitations in addition to the limitations in claim 34 as amended. Therefore, Claims 35-40 are patentable for at least the same reasons claim 34 as amended is patentable.

The argument regarding claim 34 is applicable to claim 41 as amended. Therefore Claim 41 as amended is patentable over Elwahah in view of Ayanoglu and further in view of Hall.

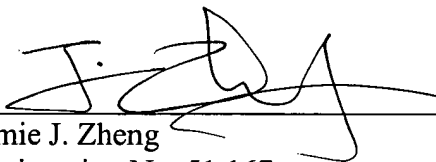
If any matters can be resolved by telephone, the Examiner is invited to call the undersigned agent at the telephone number listed below. The Commissioner is authorized to charge any additional required fees, or credit any overpayment, to Dorsey & Whitney LLP Deposit Account No. 50-2319 (Order No. A-71157/RMA/JJZ (467282-2)).

Respectfully submitted,

DORSEY & WHITNEY LLP

Dated: October 28, 2004

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